Grade 5 Mathematics Unit 2 Report

Student Name: Clyde Hendrix

In this unit, students learned how to:

- Add and subtract fractions with unlike denominators
- Solve story problems involving addition and subtraction of fractions with unlike denominators
- Find common denominators for fractions with unlike denominators
- Find the greatest commons factor and least common multiple to help simplify fractions and find common denominators
- Multiply multi-digit numbers

In this unit, students should have mastery of the following skills:

- Add and Subtract fractions with unlike denominators using equivalent fractions (Assessed using problems 1-2, 5)
- Solve story problems using fractions with unlike denominators using equivalent fractions (Assessed using problems 7, 8b, 9a, 9c, 10)

Learning Target	Performance
Use equivalent fractions as a strategy to add and subtract fractions.	Approaching
Apply and extend previous understandings of multiplication and division.	Proficient

On the back are some examples of strategies and models used to develop these skills and concepts in this unit.

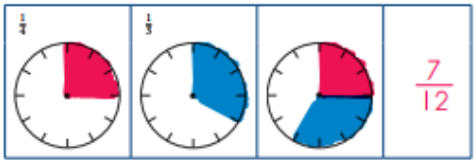
Grade 5 Mathematics Unit 2 Report

How can I help at home?

- Talk with your child about the how to find common denominators. Strategies include using clock models and money models. Ask your child how to find the Least Common Multiple and Greatest Common Factors of two numbers to help find common denominators.
- If your student is struggling, please visit www.mathlearningcenter.org for online resources. Here you can search for any skill you are wanting your child to work on.
- If your student is struggling with basic multiplication, please utilize resources such as www.xtramath.org, online flashcards, and math facts practice.
- For challenges or extensions, students can visit www.khanacademy.org to work on skills and concepts at their own pace.

Grade 5 Mathematics Unit 2 Report

PROBLEM	COMMENTS
Find the sum or difference. $\frac{3}{7} + \frac{7}{21} = \frac{9}{21} + \frac{7}{21} = \frac{16}{21}$ $\frac{8}{15} - \frac{3}{6} = \frac{16}{30} - \frac{15}{30} = \frac{1}{30}$	Later in the unit, students will need to draw upon their understanding of factors and multiples, as well as of equivalent fractions, to add and subtract fractions with unlike denominators. In both examples here, students first need to determine a common denominator so that they can add or subtract the pair of fractions.
Use a ratio table to multiply the numbers. 45 × 44 = 1,980 1 | 2 | 4 | 40 | 44 45 | 90 | 180 | 1,800 | 1,980	Students continue to practice multiplying multi-digit numbers. In this example, they use a ratio table to use known facts to calculate first the partial products (45 × 4 and 45 × 40) and then the final product, which is the sum of those partial products (45 × 44 = 45 × 4 + 45 × 40).

PROBLEM	COMMENTS
Compare these fractions. $1\frac{1}{2} > \frac{13}{10}$ $\frac{3}{10} < \frac{3}{4}$	Students use pictures to develop an understanding of fractions that they then extend to their work with numbers alone. To compare the first pair of fractions in this example, students can reason that $\frac{13}{10} = 1\frac{3}{10}$, and since $\frac{3}{10}$ is less than half ($\frac{5}{10}$), $\frac{13}{10}$ must be less than $1\frac{1}{2}$. They might notice that in the second pair of fractions, the numerator is the same: 3. Since tenths are smaller than fourths, $\frac{3}{10} < \frac{3}{4}$. They might also use $\frac{1}{2}$ as a landmark and see that since $\frac{3}{10} < \frac{1}{2}$ while $\frac{3}{4} > \frac{1}{2}$, $\frac{3}{10}$ must be less than $\frac{3}{4}$.
Show the fractions on the clocks. Then add them and report the sum.  $\frac{7}{12}$	Many problems—story problems and bare number problems alike—in this unit involve fractions with denominators that lend themselves to thinking about clock faces or money. Any fraction in which the denominator is a factor of 60 can be represented on a clock face, as part of the 60 minutes in an hour or a full rotation of a hand on a clock face, as shown here. The contexts of time and money are natural ways to ease students into thinking about adding and subtracting fractions with like and unlike denominators.
What is: $\frac{1}{5}$ of 60? 12 $\frac{1}{4}$ × 60? 15 $\frac{1}{4}$ of 100? 25 $\frac{1}{10}$ × 100? 10	Students multiply unit fractions (fractions with a 1 in the numerator) by whole numbers. Because so many of the problems in this unit invite them to think about fractions of an hour (60 minutes) or of a dollar (100 cents), these multiplication problems also involve finding some fraction of 60 or 100. Students come to see that they can find, for example, $\frac{1}{5}$ of 60 by dividing 60 by 5 and that this can be represented with multiplication notation.